

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-90. (**Canceled**).

91. (**Currently Amended**) A method for metabolomically identifying small molecules indicative of a nervous system disorder facilitating the diagnosis of a disease state of a subject, comprising:

obtaining a small molecule profile from a subject suspected of having and/or having a disease state; and

comparing the small molecule profile from the subject to a standard small molecule profile, thereby identifying small molecules indicative of a nervous system disorder of a subject, wherein said small molecule profile is obtained using one or more techniques which detect 50% or more of the small molecules in said sample diagnosing the disease state.

Claims 92-94 (**Cancelled**).

95. (**Currently Amended**) The method of any one of claims 91–93, wherein said subject is a human.

96. (**Currently Amended**) The method of any one of claims 91–93, wherein said subject is suffering or suspected of suffering from a disease state.

Claims 98-139 (**Canceled**).

140. (**New**) The method of claim 91, wherein said small molecule profiles are obtained from said subject's blood, spinal fluid, serum, cells, tissue, or cellular organelles.

141. (**New**) The method of claim 91, wherein said small molecule profiles are obtained using one or more of the following: HPLC, TLC, electrochemical analysis, mass spectroscopy, refractive index spectroscopy (RI), Ultra-Violet spectroscopy (UV), fluorescent analysis, radiochemical analysis, Near-InfraRed spectroscopy (Near-IR), Nuclear Magnetic Resonance spectroscopy (NMR), and Light Scattering analysis (LS).

142. (New) The method of claim 91, wherein said nervous system disorder is a neuropathy, Alzheimer disease, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, motor neuron disease, traumatic nerve injury, multiple sclerosis, acute disseminated encephalomyelitis, acute necrotizing hemorrhagic leukoencephalitis, dysmyelination disease, mitochondrial disease, migrainous disorder, bacterial infection, fungal infection, stroke, aging, dementia, peripheral nervous system diseases or a mental disorder.

143. (New) The method of claim 142, wherein said nervous system disorder is amyotrophic lateral sclerosis.

144. (New) The method of claim 142, wherein said nervous system disorder is Alzheimer's disease.

145. (New) The method of claim 142, wherein said nervous system disorder is Huntington's disease.

146. (New) The method of claim 142, wherein said nervous system disorder is Parkinson's disease.

147. (New) The method of claim 142, wherein said mental disorder is depression.

148. (New) The method of claim 142, wherein said mental disorder is schizophrenia.

149. (New) The method of claim 142, wherein said nervous system disorder is a neuropathy.